

Intersemiotic translations and live notations in dance, music, poetry and image

Poetry in Expanded Translation III
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This presentation is available here: [**http://rheadley.net/presentations/bangor2018.pdf**](http://rheadley.net/presentations/bangor2018.pdf)

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v0.01

Abstract

The music-text-dance pieces 'Semaphore' (2014) and 'Choregrams' (2016), amongst others, seek to interrogate relationships between various modes of expression: music, sound, text, image and movement. Many people experience such cross-domain relationships and gain pleasure and insight from them (for instance the close relationships people feel exist between film and music), but while many artists take advantage of such expressive forms, including metaphor, there is less understanding of how and why they might actually work. This practice-based research seeks to investigate these relationships and forms of expression from practical, aesthetic and technical perspectives. Research questions include:

- can software processes enable translation between expressive domains such as dance, text, music and graphic forms?
- how direct in meaning can and should these translations be? When is a direct translation appropriate and when is a more tenuous, fragile association called for?
- what forms of communication can be used and what types of notation might be involved?
- what are the practical methods for live notation, display and communication within live performance?
- what impact is there on the historical and performance issues of authenticity as against precision?

Technically, the research utilises motion capture technologies and algorithmic processes to acquire movement data from dancers and other performers. These data are used to trigger, modulate and filter algorithms in custom constructed audio and visual environments. The visual results, whether text or musical notations or images are projected as a part of the performance.

Who am I and why am I here?

- As a musician, *translation* is at the root of all activity. All acoustic instruments involve the translation between physical movement and aesthetic result. Electronic/digital instruments are different in that they have no physical link between action and response. In this case the way in which the physical data is *translated* is called *mapping*.
- Another aspect of my work involves dynamic notations. Notation often involves interpretation. Why are notations so typically fixed?
- I'm interested in western music notation as a balance between semantic and graphic communication.
- I'm interested in "Intersemiotic translations", "cross-domain expression".

- I've collaborated with dancers, musicians, poets (including Phil Terry)
- I'm interested in further collaborations
- I'm inevitably going to move around fairly freely in this presentation as I've too much material and not enough time, but want to have the material on hand in case I need it...
- First of all, here are some examples of 'cross-domain expression' or 'intersemiotic translation' as well as demonstrating some more flexible ideas of 'notation' itself.

Notation = visual art (Cordier - Belle, Bonne, Sage, (~1400) etc.)



Text = music (James Joyce, Finnegans Wake, 1939)

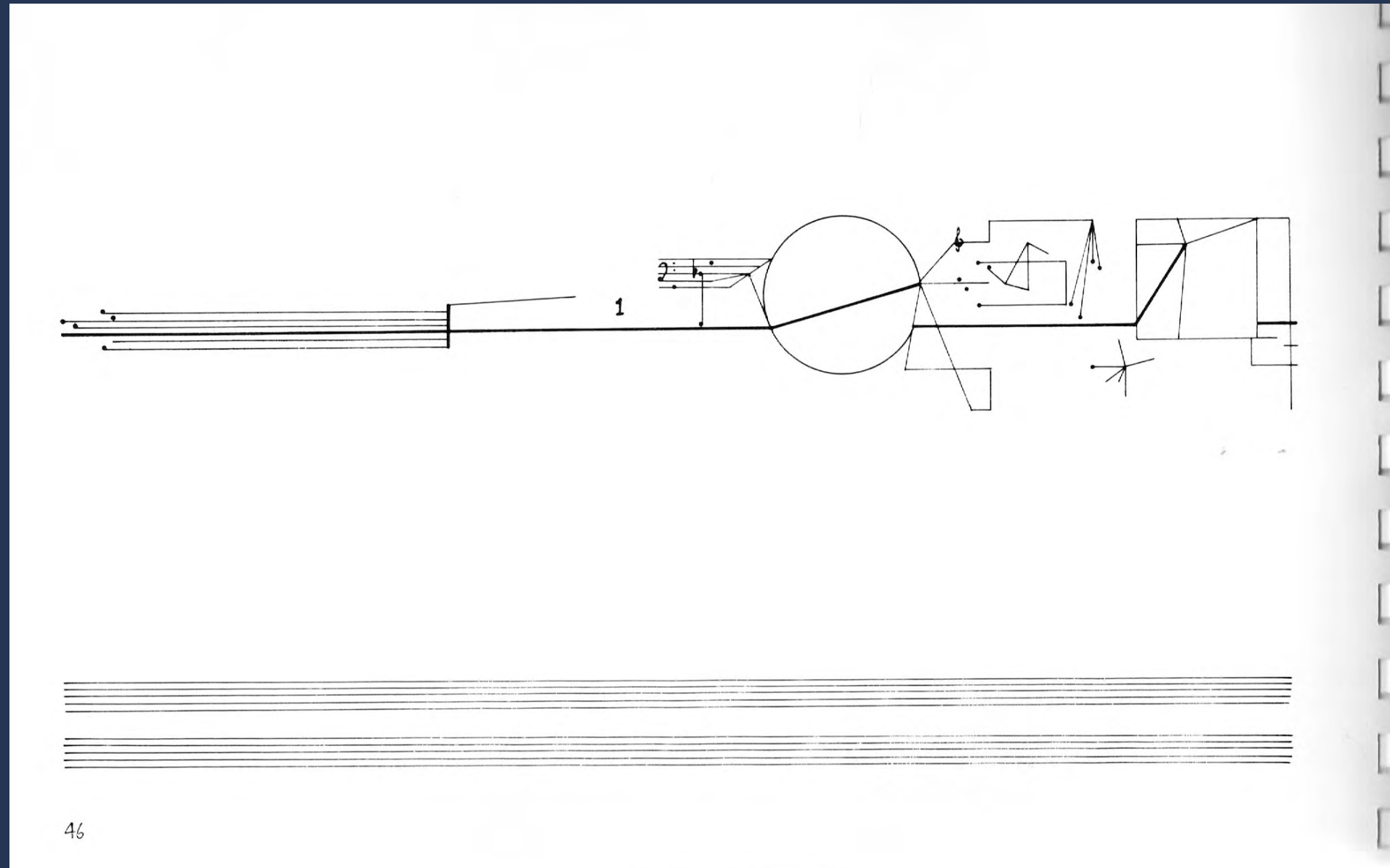
ow or don't you kennet or haven't I told you every telling has a taling and that
of it. Look, look, the dusk is growing! My branches lofty are taking root. And n
ashley. Fieluhr? Filou! What age is at? It saon is late. 'Tis endless now senne e
: saw Waterhouse's clogh. They took it asunder, I hurd thum sigh. When will th
t? O, my back, my back, my bach! I'd want to go to Aches-les-Pains. Pingpong
belle for Sexaloitez! And Concepta de Send-us-pray! Pang! Wring out the clot
dew! Godavari, vert the showers! And grant thaya grace! Aman. Will we spre
y, we will. Flip ! Spread on your bank and I'll spread mine on mine. Flep! It's w
id ! It's churning chill. Der went is rising. I'll lay a few stones on the hostel shee
bride embraced between them. Else I'd have sprinkled and folded them only
er's apron here. It's suety yet. The strollers will pass it by. Six shifts, ten kerchie
e fire and this for the code, the convent napkins, twelve, one baby's shawl. Go
ph knows, she said. Whose head?

- also Kurt Schwitters, etc...

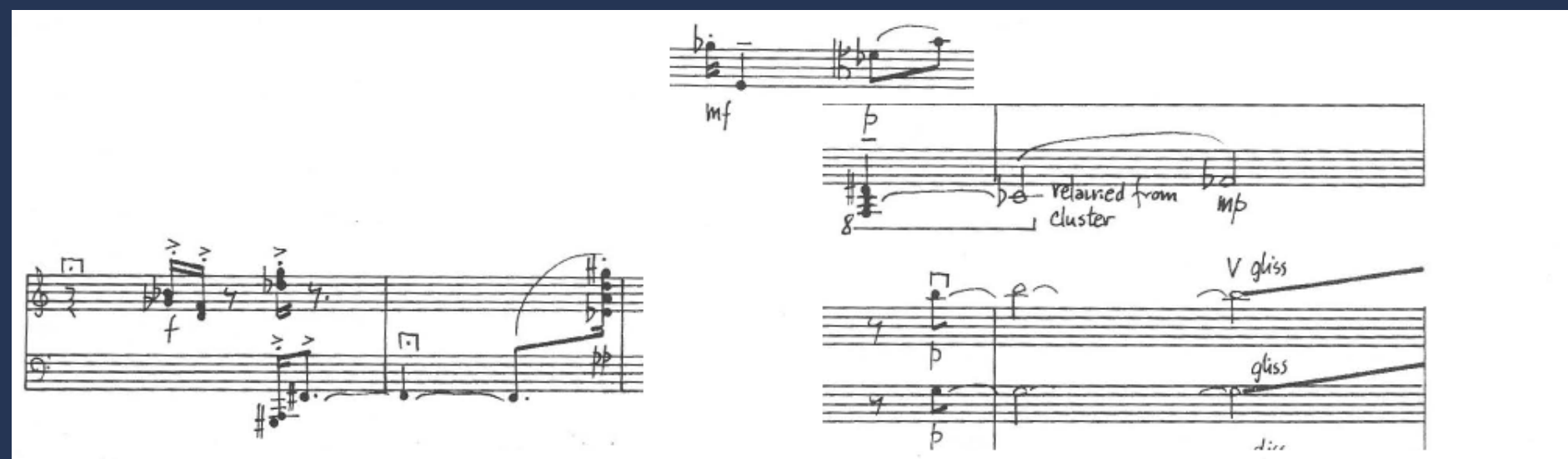
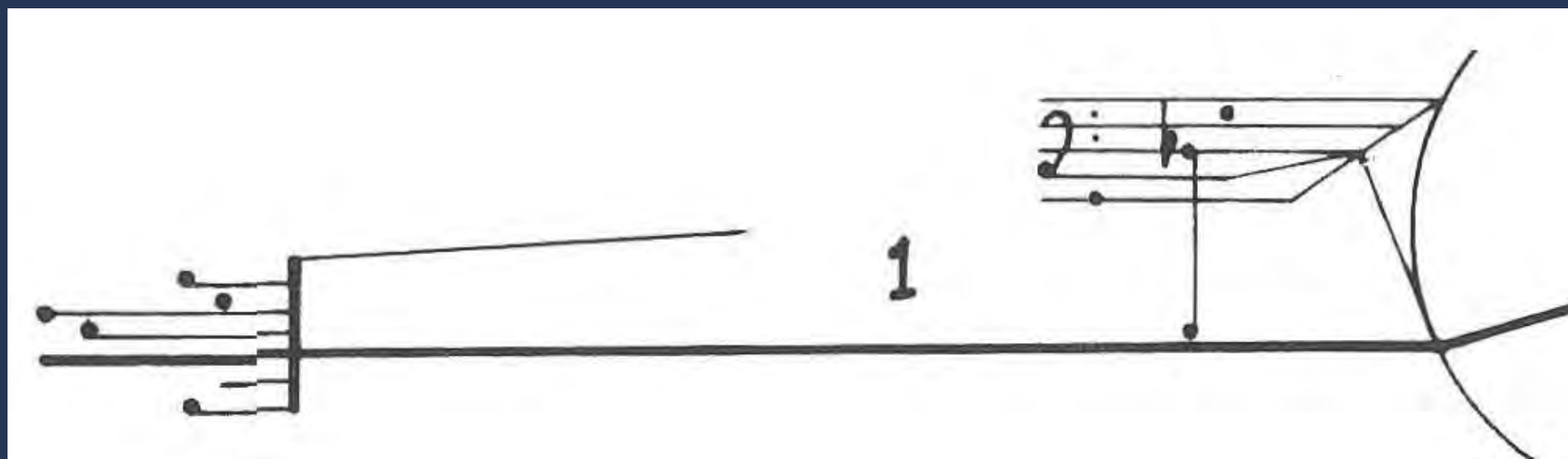
Notation = visual art (Cornelius Cardew Octet '61 (1961), etc.)



Cardew Treatise (1963) page 46

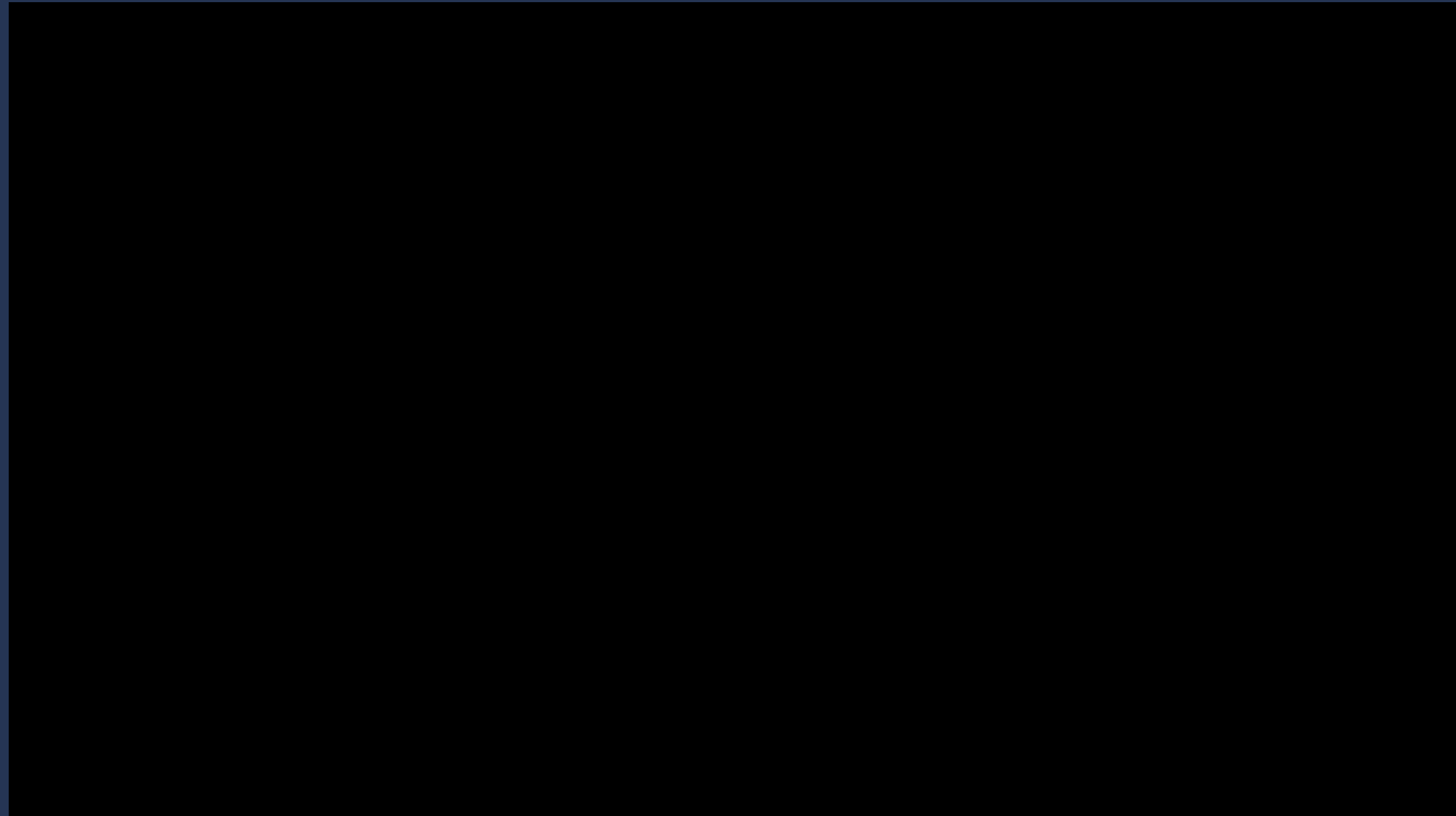


Detail from *Treatise* (p46) and translation (vs interpretation) in *Bun 2*...

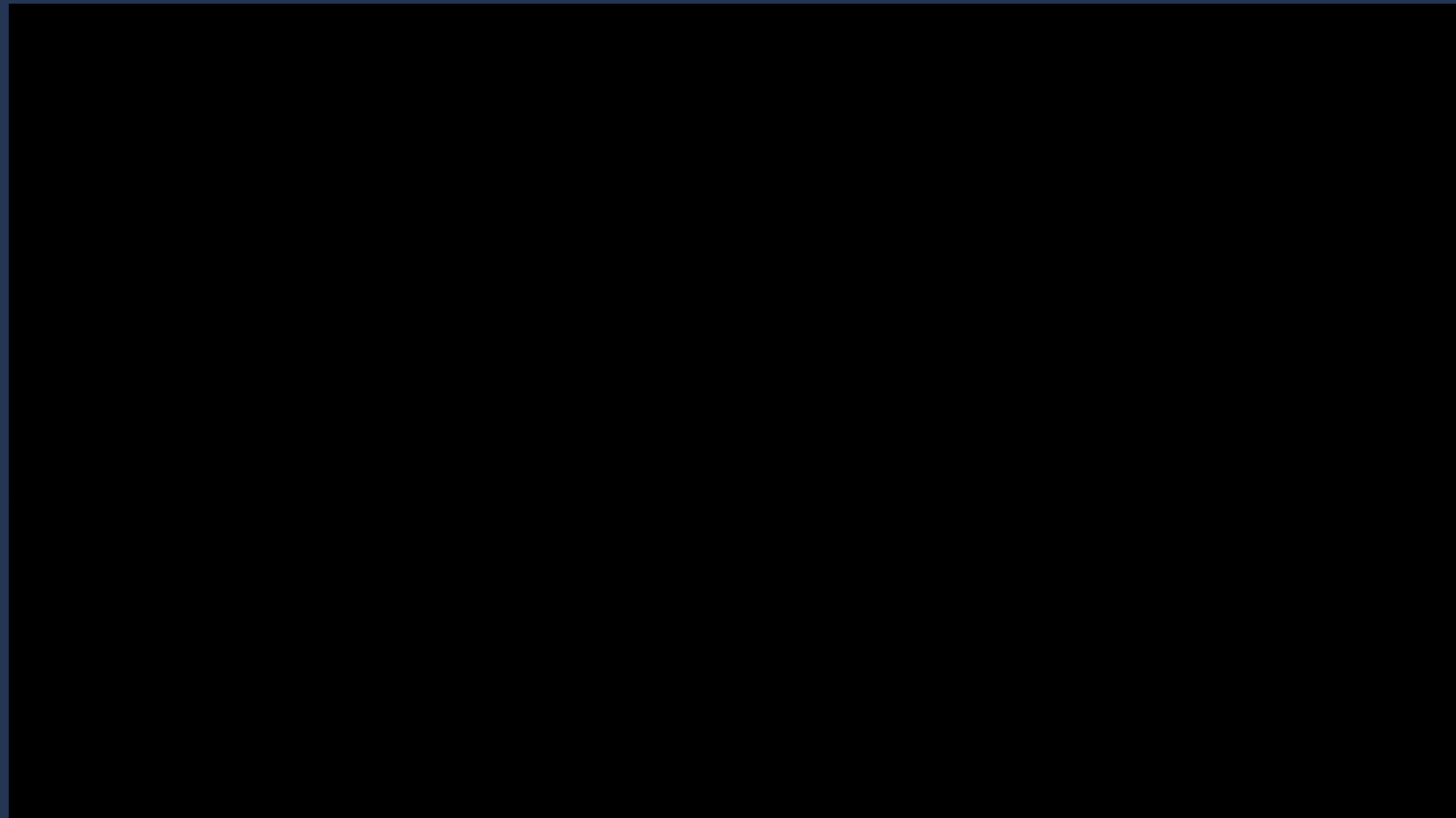


(there's so much interpretation here that one wonders about the validity of the notation, beautiful though it is.)

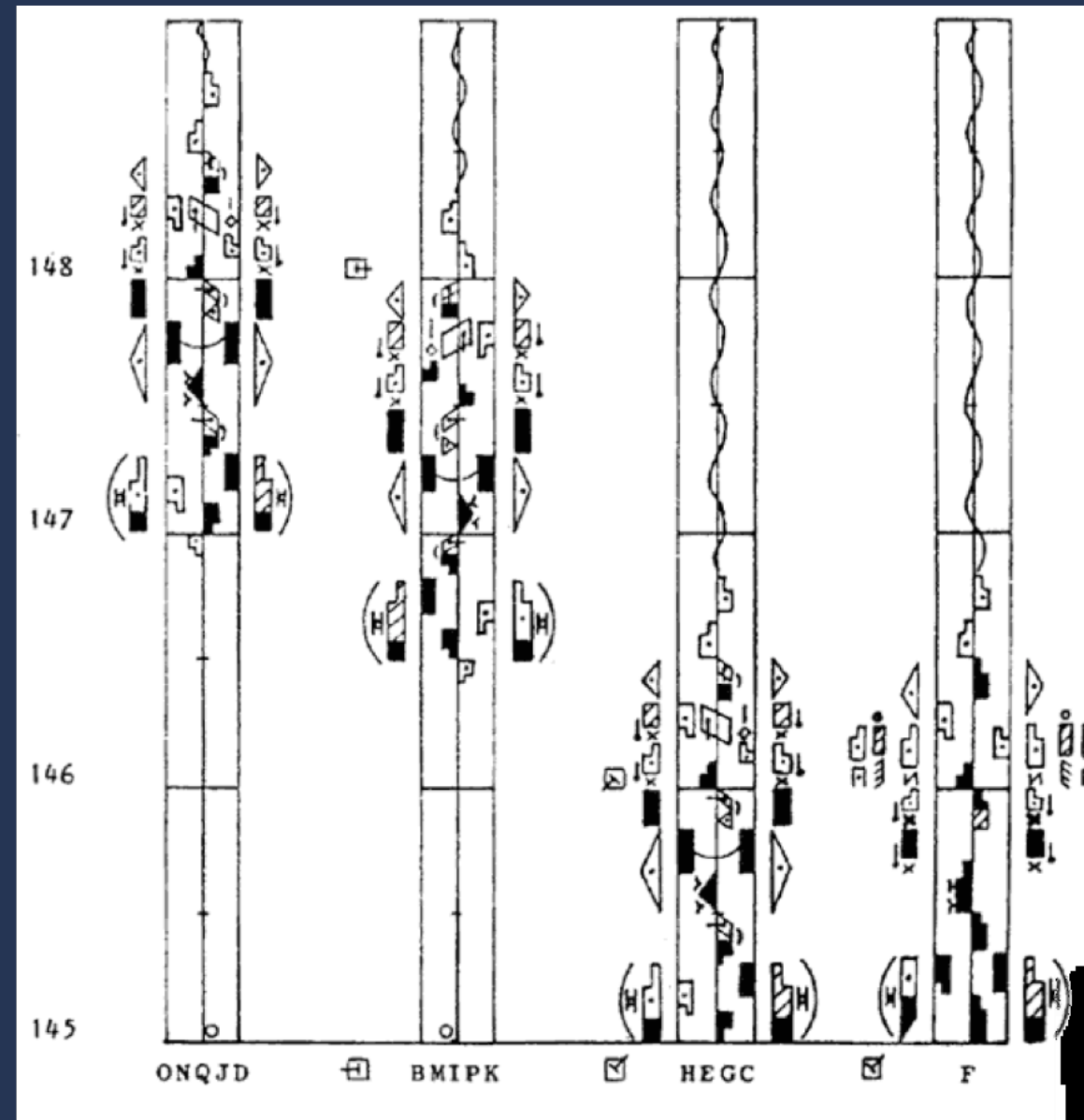
Video = music score: Christian Marclay, etc. - Crossfire (2007)



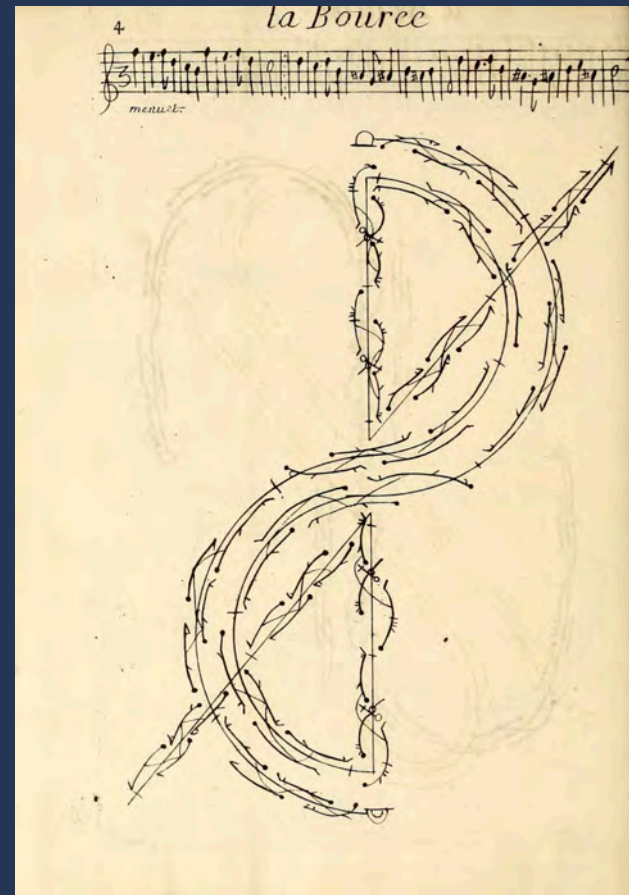
Video = music notation: Christian Marclay, etc. - Surround Sounds (2015)



Dance Notation: Labanotation



Dance Notation: Recueil de Dances (Pecour/Feuillet)



These examples emphasise the significantly different uses of technology in creative practices, for instance, musicians in western art music make the (usual) need to read music from a fixed source an integral part of their practice. Dance involves more physicality and movement and so it is more tricky to use dynamically, but see [here](#).

Semaphore 2014 (Hoadley, Terry, Turner)

- performance at York University, 2016, together with *Choreograms*
- movement drives music/audio/notations (including text)
- text readings metamorphosed into audio and notations
- physical movements as communication (hence semaphore: also the 'psi' pose (platform for situated intelligence) needed to activate Kinect 360)

Semaphore (Universities Week June 2014)



Girl at 5:50

Semaphore 2014 (Hoadley, Terry, Turner, Turning Worlds Dance)



2:20: scene 2; 5:00: dress; 8:00: hands;

Semaphore (pantoum)

Structure	Poem
A	Semaphore or some are for just as elsewhere some are against
B	Some fear to offer or seem to fear
C	Afar a fir so that through the undergrowth and across the map
D	A flare or a car
B	Some fear to offer or seem to fear
E	Soars to see the same semantic dance
D	A flare or a car
F	Oars soar with ease or seem to soar
E	Soars to see the same semantic dance
G	The same flares through the firs
F	Oars soar with ease or seem to soar
H	Seem to spore

Use of phonemes of poetry

- Like Joyce, sounds as important as semantics
- Text developed in collaboration with Phil Terry, although this was in reality a number of discussions.
- Investigations of links between text and music seem obvious because of song and the rhythms of poetry.
- Investigations made more complex because of the difference between notated (text) versions of poem and audio versions. Without semantic processing (artificial intelligence) these are not automatic technically.
- In the final poem the audio data from a recorded reading of the poem is used to generate music audio and notation which can be used as the basis for improvisatory passages (see 8:50 in the following):

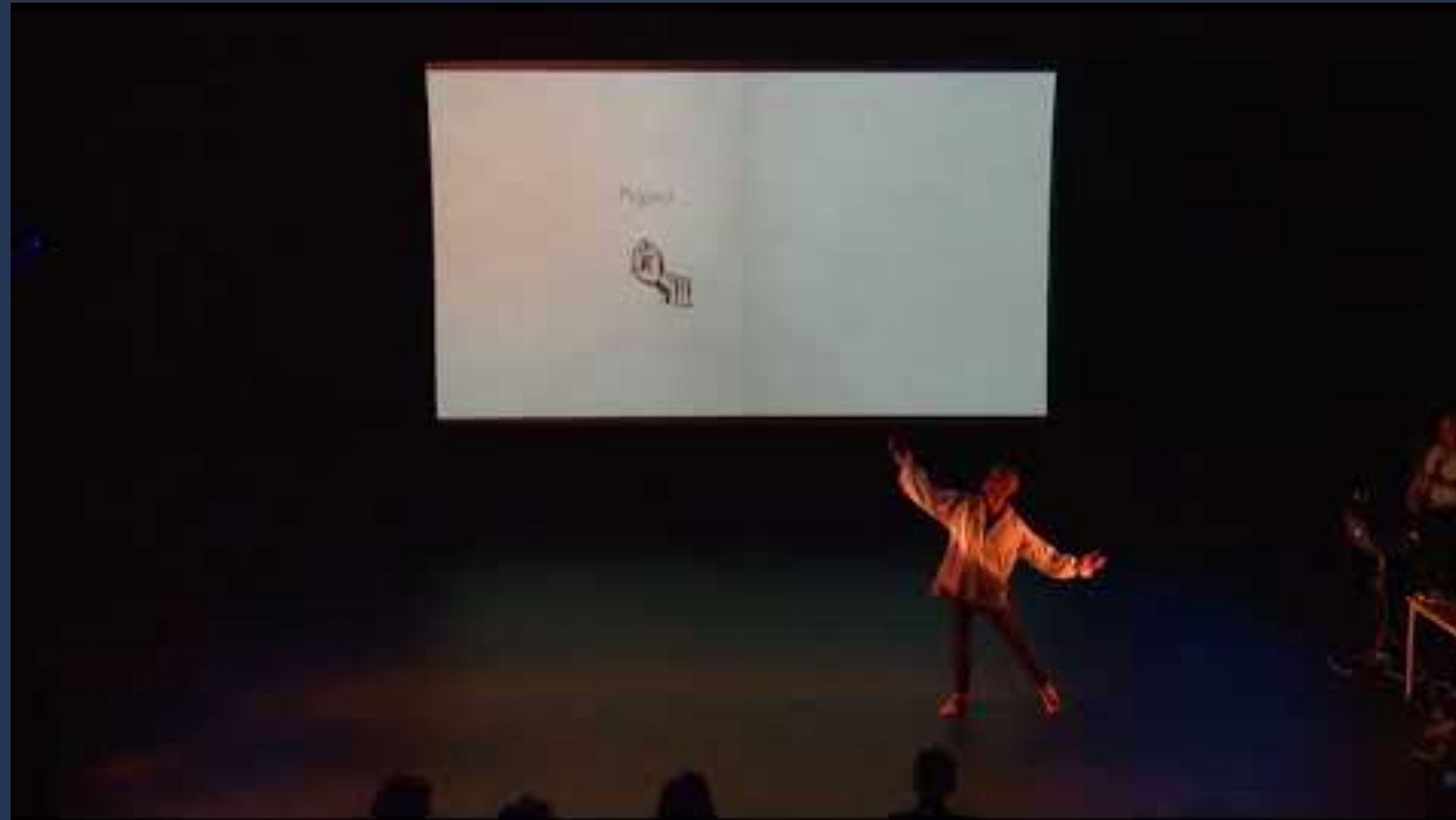


see 7:36 for algorithmic use of phonemes and poem and 9:10 for audio/music version

Choreograms (2016)

- Music, audio, notation
- Movement, dance
- Text, Poetry
- Image, hand symbols

Choreograms (2016)

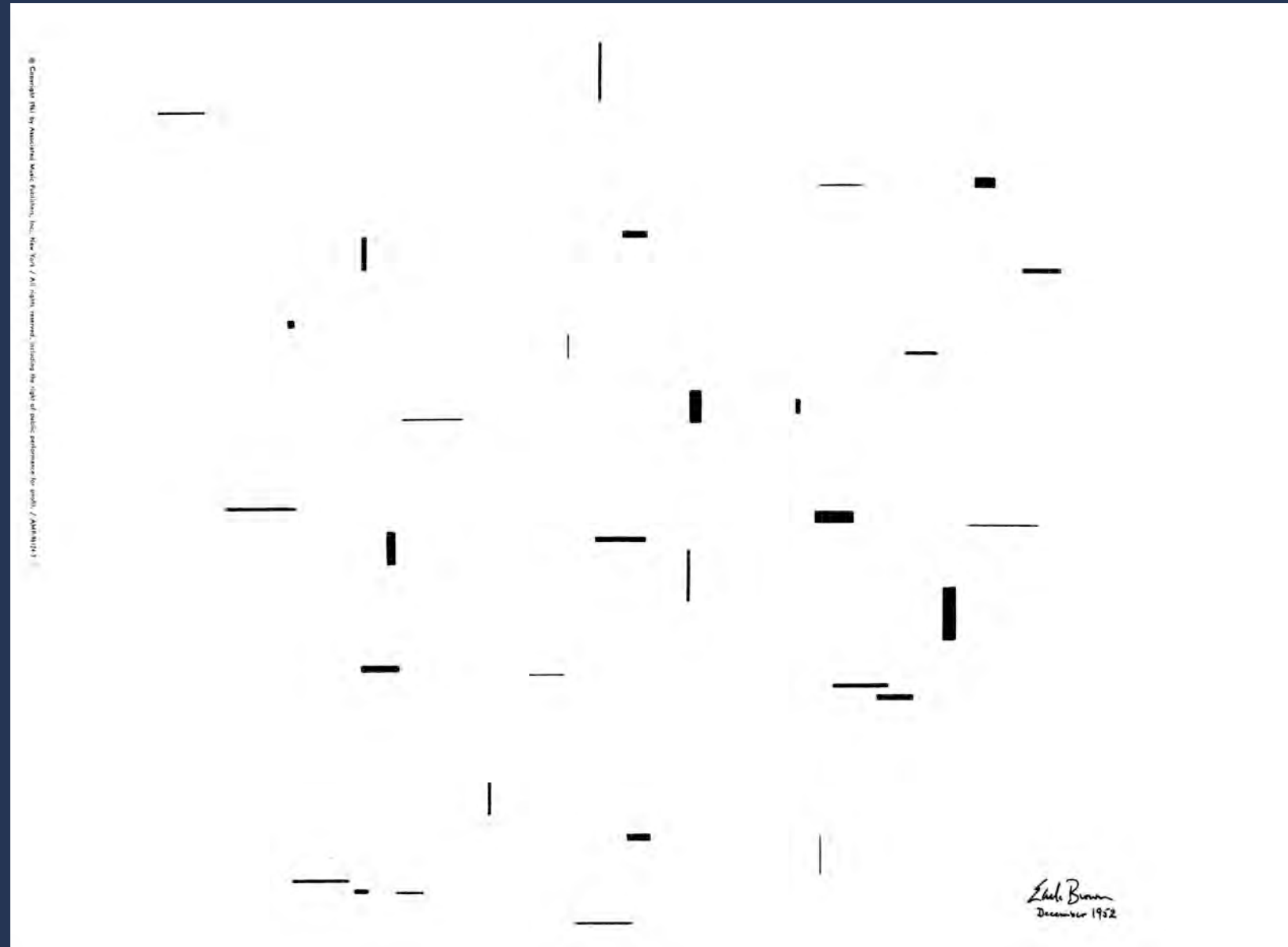


- 13:13 Choreograms, 'translation' via command (from Laban), method and result;
- Dancers (specialising in 'contemporary dance') found the idea of instruction difficult

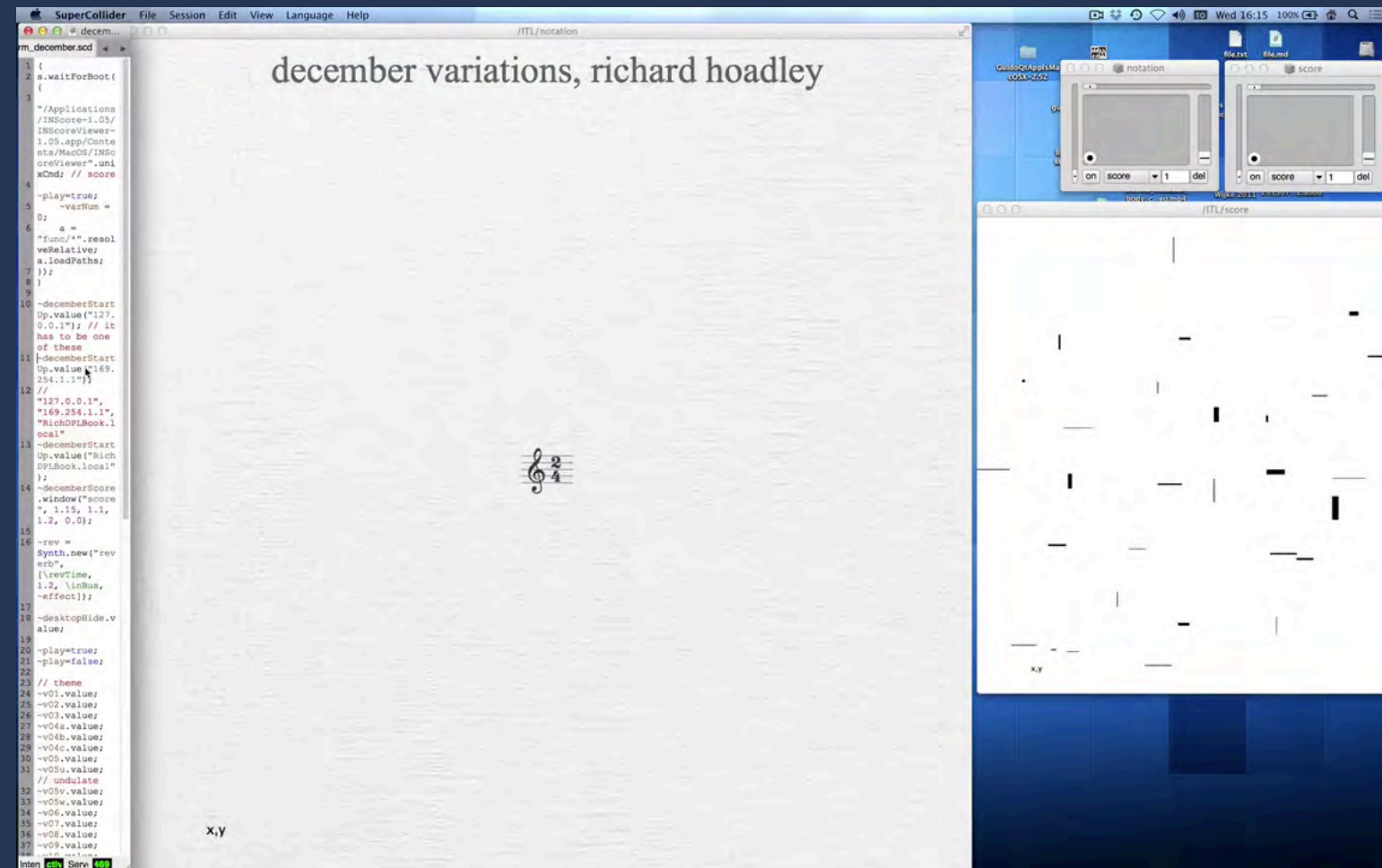
Semaphore: movement = text (draft)



Earle Brown December 1952



December Variations (2013-4)

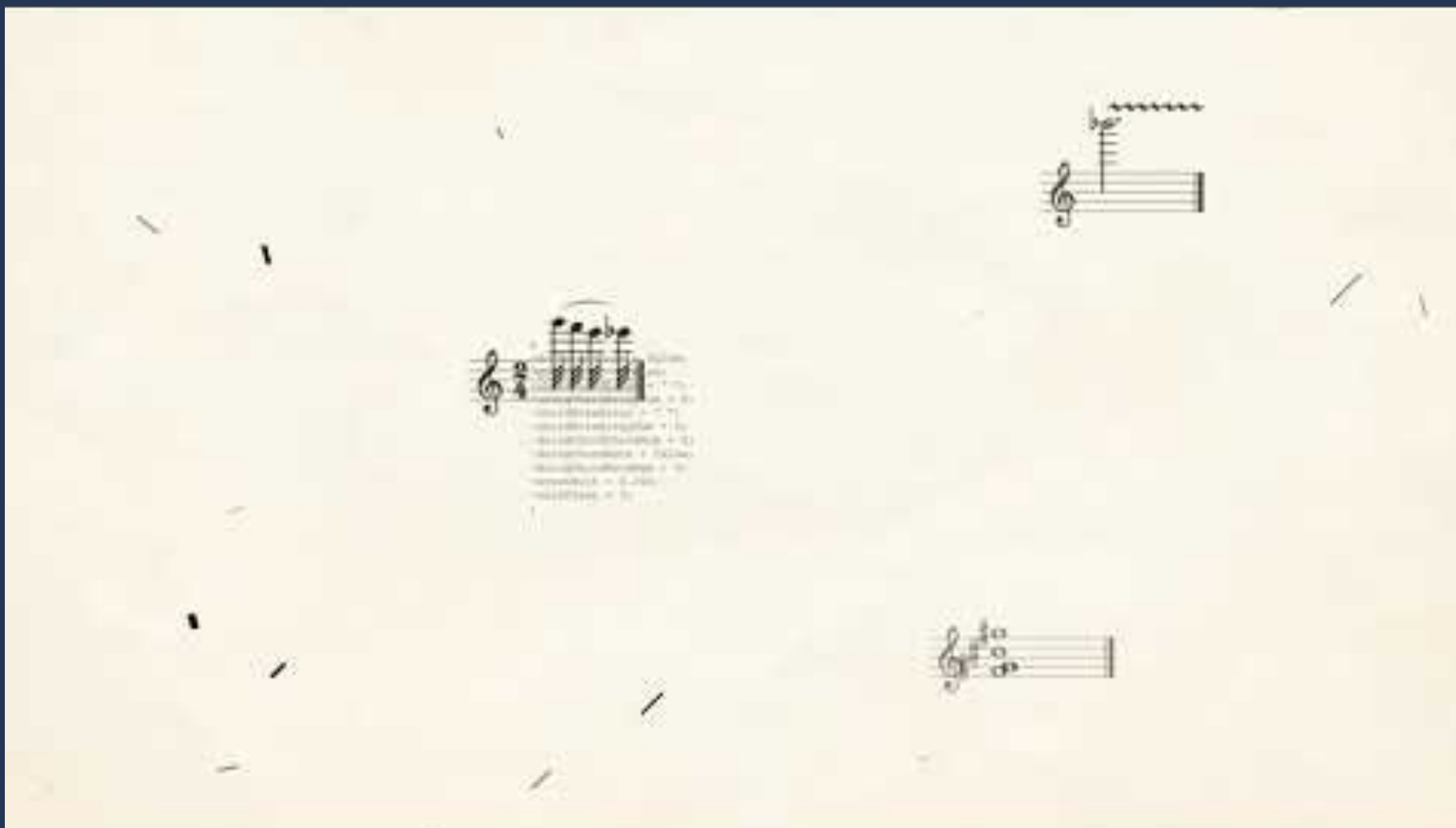


Compare theme (0:10) and variation 5 (5:00)

December Mobile (2013-16)

- notation as art
- movement as performance
- code (taken from the file the installation is based on) as poetry

December Mobile (2013-16)



How To Play the Piano 2015

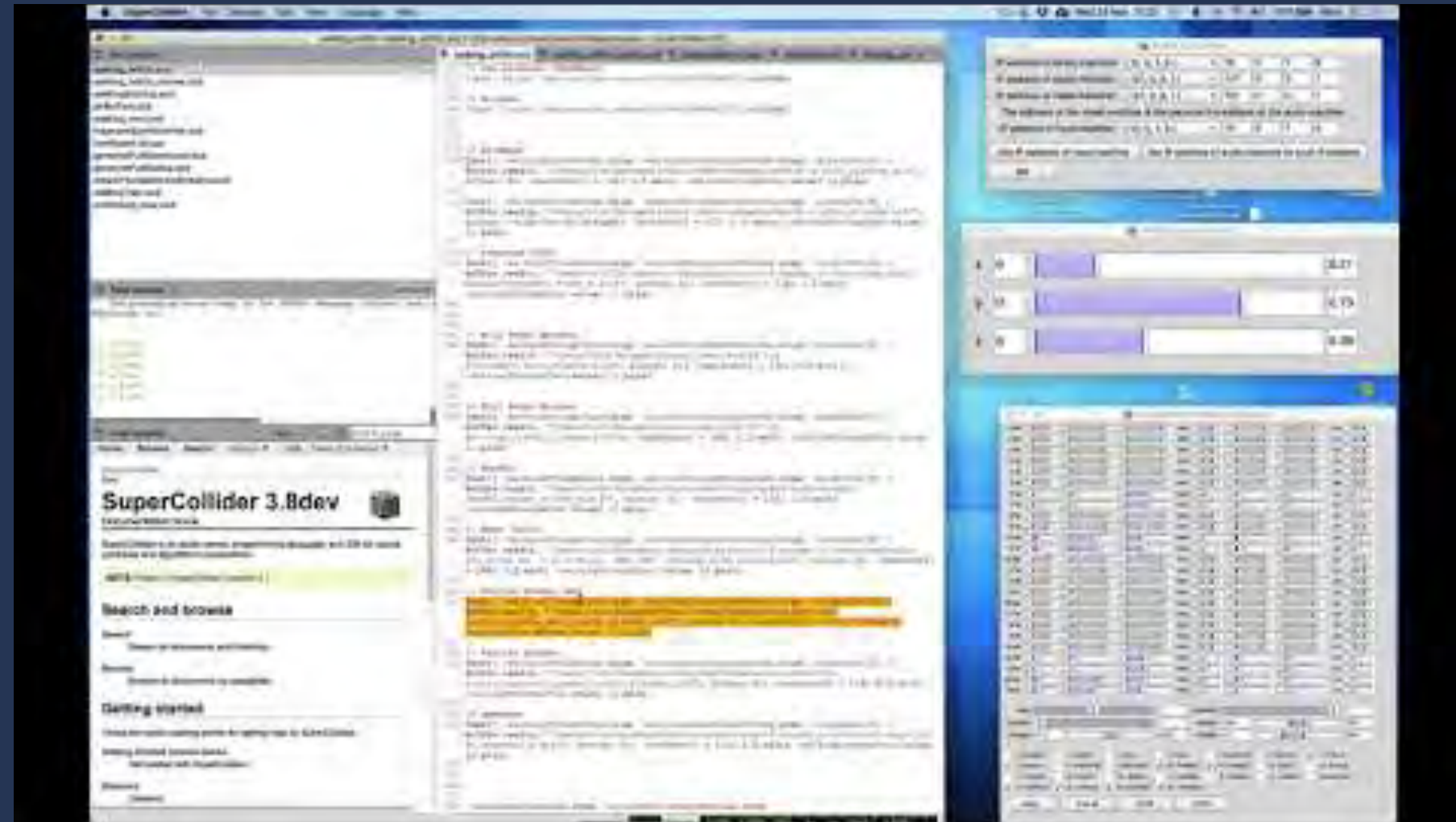


with Philip Mead; 3:00: poem; this uses the words of the poem algorithmically: taking particular fragments and some simple filtering (e.g...). Also, as in *Semaphore*, the audio data from a recorded reading of the poem is used.

Walking within... (2017-present)

- Another approach
- Experiments with music and text
- Most music and text have a *time line*.
- Importance of performer and audience knowing something of the original.
- Text processing provides many challenges: should one attempt to identify 'sensible' clauses? This is further explored in *Unthinking Things*

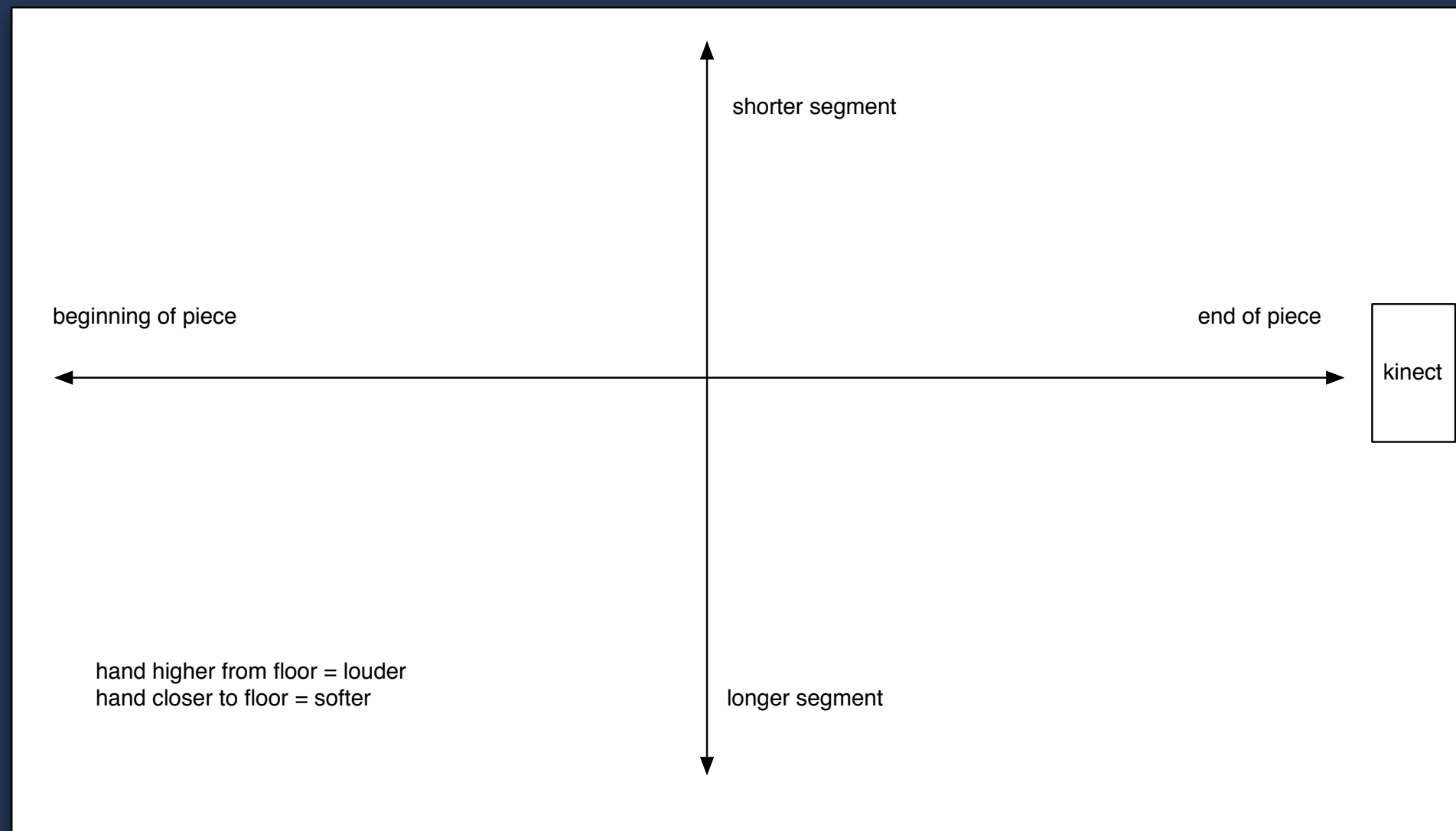
Walking within... (2017-present)



0.00: Goldberg; 1:30: Nils Petter Molvaer; 2:15: Portico; 2:45: Metamorphosis

Walking within... (2017-present)

Performance space



Choosing text

- Divide text into sentences
- Divide sentences into clauses (separated by ", ", ";", etc.)
- Edit clauses if they're too long, but avoid phrases ending in words such as "as, the, on, in", etc.
- Avoid single words that could be inappropriate (e.g. 'snatch' in 'How To Play the Piano')

Unthinking Things (2018)

- Uses text, image, audio, standard and graphic notation
- The text is from Bishop George Berkeley's *Principals of Human Knowledge*
- First use of many performers (16 voice choir)
- First use of graphic notations
- First collaboration with 'amateur' musicians
- Text processing provides many challenges: should one attempt to identify 'sensible' clauses?

Unthinking Things (2018)

The image shows a musical score for a piece titled "Unthinking Things" (2018). The score is written for four voices: soprano (sop.), alto (alt.), tenor (ten.), and bass (bas.). The music is in 2/4 time and features Latin lyrics. The lyrics are: "ci - pi e - sse est per - ci e - sse est per - ci - pi e - sse est per - ci - pi e - est". The score consists of four staves, each with a vocal line and its corresponding lyrics. The soprano line starts with a treble clef and a key signature of one sharp (F#). The alto, tenor, and bass lines also use treble clefs, with the bass line using a bass clef. The lyrics are distributed across the staves as follows: Soprano: "ci - pi e - sse est per - ci"; Alto: "e - sse est per - ci - pi"; Tenor: "sse est per - ci - pi e -"; Bass: "est".

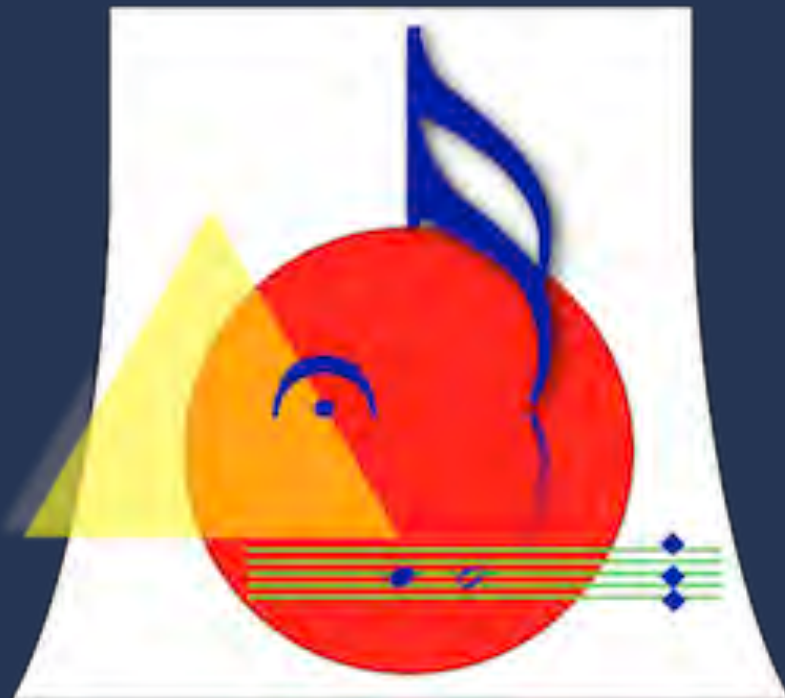
with the St Augustine's Singers, Cambridge

The tools

- If anything is new here it's the use of automatically generating notation, particularly in music.
- provide a structure for the **generation** of music and/or common practice **notation** as well as text and **graphical** elements (including raster and vector images).
- facilitate communication between **SuperCollider** and **INScore**
- offer the beginnings of a more standard interface for **physical mapping** and **live notation**

which are located...

- <https://github.com/supercollider/supercollider>
- <http://inscore.sourceforge.net/>
- <http://rheadley.net/inscore> (on request)



Any questions and call for collaboration

contact:

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this presentation is available at

<http://rheadley.net/presentations>

as **bangor2018.pdf**

video recordings of past performances are at **rheadley.net/youtube** and **rheadley.net/vimeo**